(FILE 'HOME' ENTERED AT 16:57:27 ON 09 NOV 2002)

FILE 'STNGUIDE' ENTERED AT 16:57:40 ON 09 NOV 2002
SET LINE 250
SET DETAIL OFF

FILE 'HOME' ENTERED AT 16:57:49 ON 09 NOV 2002
SET LINE LOGIN
SET DETAIL LOGIN

FILE 'BIOSIS, AGRICOLA, ALUMINIUM, ANABSTR, AQUIRE, BABS, BIOCOMMERCE, BIOTECHNO, CABA, CAOLD, CAPLUS, CBNB, CEABA-VTB, CEN, CERAB, CIN, COMPENDEX, CONFSCI, COPPERLIT, CORROSION, DKILIT, ENCOMPLIT, ENCOMPLIT2, FEDRIP, GENBANK, INSPEC, INSPHYS, INVESTEXT, ...' ENTERED AT 16:59:10 ON 09 NOV 2002

L1 22534 SEA ADHESIONS
L2 2471 SEA L1 AND PREVENTION
L3 29 SEA L2 AND GLUCOSE
L4 1 SEA L3 AND DEGREE OF POLYMERIZATION
D L4 1
D L4 1 ALL
D L3 TI
D L3 1-29, TI
D L3 1, 2, 5, 6, 9-11, 14, 17, 20, 26-28, STD, AB
D L3 1, 2, 5, 6, 9-11, 14, 17, 20, 26-28 ALL

FILE HOME

FILE STNGUIDE
FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Nov 1, 2002 (20021101/UP).

FILE BIOSIS
FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 7 November 2002 (20021107/ED)

FILE AGRICOLA

FILE COVERS 1970 TO 9 Nov 2002 (20021109/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

FILE ALUMINIUM
FILE LAST UPDATED: 6 NOV 2002 <20021106/UP>
FILE COVERS 1968 TO DATE.

FILE ANABSTR
FILE LAST UPDATED: 4 NOV 2002 <20021104/UP>
FILE COVERS 1980 TO DATE.

FILE AQUIRE

FILE COVERS 1915 TO 18 Aug 2002 (20020818/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

FILE BABS
FILE LAST UPDATED: 29 AUG 2002 <20020829/UP>
FILE COVERS 1980 TO DATE.

FILE BIOCOMMERCE
FILE LAST UPDATED: 5 NOV 2002 <20021105/UP>

FILE BIOTECHNO
FILE LAST UPDATED: 7 NOV 2002 <20021107/UP>
FILE COVERS 1980 TO DATE.

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN
/CT AND BASIC INDEX <<<

FILE CABA
FILE COVERS 1973 TO 8 Nov 2002 (20021108/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

FILE CAOLD
FILE COVERS 1907-1966

FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

FILE CAPLUS

FILE COVERS 1907 - 9 Nov 2002 VOL 137 ISS 20
FILE LAST UPDATED: 7 Nov 2002 (20021107/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

FILE CBNB
FILE LAST UPDATED: 8 NOV 2002 <20021108/UP>
FILE COVERS 1984 TO DATE.

FILE CEABA-VTB
FILE LAST UPDATED: 7 NOV 2002 <20021107/UP>
FILE COVERS 1966 TO DATE

FILE CEN
FILE COVERS 1991 TO 12 Jan 2001 (20010112/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

As of January 15, 2001, the American Chemical Society (ACS) is no longer updating the CEN database on STN. CEN will continue to be available on STN as a static file.

FILE CERAB
FILE COVERS 1976 TO 23 MAY 1997 (970523/ED)

THIS FILE IS CURRENTLY NOT BEING UPDATED.

FILE CIN

FILE COVERS 1974 - 8 NOV 2002 (20021108/ED) VOL 31 ISS 46

FILE COMPENDEX
FILE LAST UPDATED: 6 NOV 2002 <20021106/UP>
FILE COVERS 1970 TO DATE.

FILE CONFSCI
FILE COVERS 1973 TO 4 Sep 2002 (20020904/ED)

FILE COPPERLIT
FILE LAST UPDATED: 26 SEP 2002 <20020926/UP>
FILE COVERS 1965 TO DATE

>>> Simultaneous left and right truncation available in
the Basic Index <<<

FILE CORROSION
FILE LAST UPDATED: 25 SEP 2002 <20020925/UP>
FILE COVERS 1980 TO DATE.

FILE DKILIT
FILE LAST UPDATED: 29 OCT 2002 <20021029/UP>
FILE COVERS 1973 TO DATE.

FILE ENCOMPLIT
FILE COVERS 1964 TO 6 Nov 2002 (20021106/ED)

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FILE ENCOMPLIT2

FILE COVERS 1964 TO 6 Nov 2002 (20021106/ED)
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FILE FEDRIP

FILE COVERS CURRENT DATA. LAST UPDATE: 24 OCT 2002 (20021024/ED)

FILE GENBANK

GENBANK (R) IS A REGISTERED TRADEMARK OF THE U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE INSPEC
FILE LAST UPDATED: 4 NOV 2002 <20021104/UP>
FILE COVERS 1969 TO DATE.

FILE INSPHYS
FILE LAST UPDATED: 23 DEC 94 <941223/UP>
FILE COVERS 1979 - 1994

>>> INSPHYS THESAURUS AVAILABLE IN FIELD /CT <<<

FILE INVESTEXT
FILE COVERS JULY 1982 TO 9 NOVEMBER 2002 (20021109/ED)

Moody's Investors' Service Reports have now been added to INVESTEXT.
To review the terms and conditions associated with the use of the data from Moody's, enter HELP USAGETERMS at an arrow prompt (=>).

FILE IPA
FILE COVERS 1970 TO 16 OCT 2002 (20021016/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE JICST-EPLUS
FILE COVERS 1985 TO 5 NOV 2002 (20021105/ED)

THE JICST-EPLUS FILE HAS BEEN RELOADED TO REFLECT THE 1999 CONTROLLED TERM (/CT) THESAURUS RELOAD.

FILE KOSMET
FILE LAST UPDATED: 4 NOV 2002 <20021104/UP>
FILE COVERS 1968 TO DATE.

FILE METADEX
FILE LAST UPDATED: 7 NOV 2002 <20021107/UP>
FILE COVERS 1966 TO DATE.

FILE NAPRALERT

Some records in this file are extremely long when displayed in the ALL format. The CHC (Character Count) field can be used to estimate record length. Type HELP CONTENT at the next arrow prompt (=>) for data content and search strategy information.

FILE COVERS 1650 TO 14 OCT 2002 (20021014/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE NIOSHTIC

FILE COVERS 1973 TO 13 Oct 1998 (19981013/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE NTIS
FILE LAST UPDATED: 2 NOV 2002 <20021102/UP>
FILE COVERS 1964 TO DATE.

>>> NTIS HAS BEEN RELOADED. PLEASE SEE HELP RLOAD FOR DETAILS >>>

FILE PAPERCHEM2
FILE COVERS 1967 TO 6 Nov 2002 (20021106/ED)

FILE PASCAL
FILE LAST UPDATED: 6 NOV 2002 <20021106/UP>
FILE COVERS 1984 TO DATE.

FILE PROMT
FILE COVERS 1978 TO 8 NOV 2002 (20021108/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE RAPRA
FILE LAST UPDATED: 8 NOV 2002 <20021108/UP>
FILE COVERS 1972 TO DATE

>>> The RAPRA Classification Code is available as a PDF file
>>> and may be downloaded free-of-charge from:
>>> http://www.stn-international.de/stndatabases/details/rapra_classcodes.

FILE RUSSCI
FILE LAST UPDATED: 07 OCT 2002 <20021007/UP>

FILE SCISEARCH
FILE COVERS 1974 TO 8 Nov 2002 (20021108/ED)

FILE TULSA

FILE COVERS 1965 TO 6 NOV 2002 (20021106/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE TULSA2

FILE COVERS 1965 TO 6 NOV 2002 (20021106/ED)

FILE USAN
FILE COVERS 1953 THROUGH JULY 2002

USAN was reloaded July 28, 2002. Answer sets saved prior to this date are no longer be valid. Saved queries and L-number sessions have not been impacted.

If you saved answer sets prior to the reload, your only option is to re-run the search using the query associated with these original answer sets. Please contact the Help Desk with questions or for further assistance.

FILE WELDASEARCH
FILE LAST UPDATED: 5 NOV 2002 <20021105/UP>
FILE COVERS 1967 TO DATE

>>> SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN THE BASIC INDEX <<<

FILE WSCA
FILE LAST UPDATED: 25 OCT 2002 <20021025/UP>
FILE COVERS 1976 TO DATE

L3 ANSWER 1 OF 29 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Development of a novel **glucose** polymer solution (icodextrin) for adhesion **prevention**: Pre-clinical studies.

L3 ANSWER 2 OF 29 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Use of fibrinolytic agents in the **prevention** of postoperative adhesion formation.

L3 ANSWER 3 OF 29 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Mitochondrial dysfunction and cytosekeletal disruption during chemical hypoxia to cultured rat hepatic sinusoidal endothelial cells: The pH paradox and cytoprotection by **glucose**, acidotic pH, and glycine.

L3 ANSWER 4 OF 29 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI EFFECT OF CORTICO STEROIDS ON BLOOD PICTURE IN POST PARTURIENT BUFFALO.

L3 ANSWER 5 OF 29 BIOTECHNO COPYRIGHT 2002 Elsevier Science B.V.
TI Development of a novel **glucose** polymer solution (icodextrin) for adhesion **prevention**: Pre-clinical studies

L3 ANSWER 6 OF 29 BIOTECHNO COPYRIGHT 2002 Elsevier Science B.V.
TI Use of fibrinolytic agents in the **prevention** of postoperative adhesion formation

L3 ANSWER 7 OF 29 BIOTECHNO COPYRIGHT 2002 Elsevier Science B.V.
TI Mitochondrial dysfunction and cytoskeletal disruption during chemical hypoxia to cultured rat hepatic sinusoidal endothelial cells: The pH paradox and cytoprotection by **glucose**, acidotic pH, and glycine

L3 ANSWER 8 OF 29 BIOTECHNO COPYRIGHT 2002 Elsevier Science B.V.
TI Adjuvants in tubal surgery

L3 ANSWER 9 OF 29 CAOLD COPYRIGHT 2002 ACS
TI Intraperitoneal use of hypertonic **glucose** solution-**prevention** of **adhesions**

L3 ANSWER 10 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI A randomized, controlled pilot study of the safety and efficacy of 4% icodextrin solution in the reduction of **adhesions** following laparoscopic gynecological surgery

L3 ANSWER 11 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Development of a novel **glucose** polymer solution (icodextrin) for adhesion **prevention**: Pre-clinical studies

L3 ANSWER 12 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Mitochondrial dysfunction and cytoskeletal disruption during chemical hypoxia to cultured rat hepatic sinusoidal endothelial cells: the pH paradox and cytoprotection by **glucose**, acidotic pH, and glycine

L3 ANSWER 13 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI Crosslinkable polypeptide compositions and their use in delivery of biologically active agents to subjects

L3 ANSWER 14 OF 29 CAPLUS COPYRIGHT 2002 ACS
TI The intraperitoneal use of hypertonic **glucose** solution. An experimental study with reference to the **prevention** of **adhesions**

L3 ANSWER 15 OF 29 CEN COPYRIGHT 2002 ACS

TI Tissue Engineering
The groundwork for developing biological substitutes for damaged tissue is being prepared by a new, rapidly evolving interdisciplinary field that

draws on the expertise of chemical engineers

L3 ANSWER 16 OF 29 INVESTEXT COPYRIGHT 2002 TFS

TI Biotechnology Industry Product Chart - Industry Report

L3 ANSWER 17 OF 29 PASCAL COPYRIGHT 2002 INIST-CNRS. ALL RIGHTS RESERVED.
TIEN Use of fibrinolytic agents in the **prevention** of postoperative adhesion formation

L3 ANSWER 18 OF 29 PASCAL COPYRIGHT 2002 INIST-CNRS. ALL RIGHTS RESERVED.
TIEN Development of a novel **glucose** polymer solution (icodextrin) for adhesion **prevention** : pre-clinical studies

L3 ANSWER 19 OF 29 PASCAL COPYRIGHT 2002 INIST-CNRS. ALL RIGHTS RESERVED.
TIEN Mitochondrial dysfunction and cytoskeletal disruption during chemical hypoxia to cultured rat hepatic sinusoidal endothelial cells : The pH paradox and cytoprotection by **glucose**, acidotic pH, and glycine

L3 ANSWER 20 OF 29 PASCAL COPYRIGHT 2002 INIST-CNRS. ALL RIGHTS RESERVED.
TIEN Preventing recurrent postoperative **adhesions**: an experimental study in rats

L3 ANSWER 21 OF 29 PROMT COPYRIGHT 2002 Gale Group

TI Competition heats up in implanted devices.(various medical company products)(Statistical Data Included)

L3 ANSWER 22 OF 29 PROMT COPYRIGHT 2002 Gale Group

TI Cutting--edge Carbohydrates.

L3 ANSWER 23 OF 29 PROMT COPYRIGHT 2002 Gale Group

TI Best PIPELINES.

L3 ANSWER 24 OF 29 PROMT COPYRIGHT 2002 Gale Group

TI Never richer

L3 ANSWER 25 OF 29 PROMT COPYRIGHT 2002 Gale Group

TI Pharmacy update: Focus on diabetes

L3 ANSWER 26 OF 29 SCISEARCH COPYRIGHT 2002 ISI (R)
TI A randomized, controlled pilot study of the safety and efficacy of 4(icodextrin solution in the reduction of **adhesions** following laparoscopic gynaecological surgery

L3 ANSWER 27 OF 29 SCISEARCH COPYRIGHT 2002 ISI (R)
TI Development of a novel **glucose** polymer solution (icodextrin) for adhesion **prevention**: pre-clinical studies

L3 ANSWER 28 OF 29 SCISEARCH COPYRIGHT 2002 ISI (R)
TI Use of fibrinolytic agents in the **prevention** of postoperative adhesion formation

L3 ANSWER 29 OF 29 SCISEARCH COPYRIGHT 2002 ISI (R)
TI Mitochondrial dysfunction and cytoskeletal disruption during chemical hypoxia to cultured rat hepatic sinusoidal endothelial cells: The pH paradox and cytoprotection by **glucose**, acidotic pH, and glycine

L3 ANSWER 11 OF 29 CAPLUS COPYRIGHT 2002 ACS
AN 2000:617408 CAPLUS
DN 134:120900
TI Development of a novel **glucose** polymer solution (icodextrin) for adhesion **prevention**: Pre-clinical studies
AU Verco, Shelagh J. S.; Peers, Elizabeth M.; Brown, Colin B.; Rodgers, Kathleen E.; Roda, Norma; diZerega, Gere
CS ML Laboratories PLC, Leicestershire, LE8 4FA, UK
SO Human Reproduction (2000), 15(8), 1764-1772
CODEN: HUREEE; ISSN: 0268-1161
PB Oxford University Press
DT Journal
LA English
AB Intra-abdominal adhesion formation causes significant post-operative morbidity. Controlled studies using animal models have been carried out to assess the tolerability and preventive efficacy of icodextrin solution (a biodegradable, biocompatible, **glucose** polymer). Reduction of adhesion formation was first evaluated in a rabbit double uterine horn model, applying 10-75 mL of 7.5 and 20%, or 50 mL of 2.5-20% icodextrin solution post-operatively. Significant increases in adhesion free sites ($P < 0.005$) were observed with vols. ≥25 mL, and at concns. ≥4%. Efficacy of 50 mL 4 and 20% icodextrin was then evaluated both during and after surgery, demonstrating significant redns. in adhesion formation ($P < 0.002$). In one study, intraplus post-operative use of 4% icodextrin produced the greatest reduction of non-surgical site **adhesions**; in others, the post-operative effect was predominant. Post-surgical administration of 50 mL 4% icodextrin in a rabbit sidewall model also resulted in more adhesion-free animals, and a significant reduction ($P < 0.001$) in areas of adhesion formation and reformation. In a rat infection potentiation model, 4% icodextrin produced no difference in mortality, abscess formation or overall abscess score. These data suggest that 4% icodextrin offers a well-tolerated and effective means of reducing post-surgical adhesion formation.
RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 14 OF 29 CAPLUS COPYRIGHT 2002 ACS
AN 1940:48614 CAPLUS
DN 34:48614
OREF 34:7438f-g
TI The intraperitoneal use of hypertonic **glucose** solution. An experimental study with reference to the **prevention** of **adhesions**
AU Totten, H. P.
SO Surgery (1940), 8, 456-63
DT Journal
LA Unavailable
AB Hypertonic **glucose** in normal salt solution is entirely innocuous when given intraperitoneally to rabbits. It is completely absorbed within 24 hrs. It prevents the formation and re-formation of exptl. **adhesions** and produces a certain degree of nonspecific immunity in the peritoneum. When gross peritoneal contamination is present, hypertonic **glucose** hastens the spread of infection.

=> d L3 1, 2, 5, 6, 9-11, 14, 17, 20, 26-28 all

L3 ANSWER 1 OF 29 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2000:415079 BIOSIS
DN PREV200000415079
TI Development of a novel **glucose** polymer solution (icodextrin) for adhesion **prevention**: Pre-clinical studies.
AU Verco, Shelagh J. S. (1); Peers, Elizabeth M.; Brown, Colin B.; Rodgers, Kathleen E.; Roda, Norma; DiZerega, Gere
CS (1) ML Laboratories PLC, Blaby, Leicestershire, LE8 4FA UK
SO Human Reproduction (Oxford), (August, 2000) Vol. 15, No. 8, pp. 1764-1772. print.
ISSN: 0268-1161.
DT Article
LA English
SL English
AB Intra-abdominal adhesion formation causes significant post-operative morbidity. Controlled studies using animal models have been carried out to assess the tolerability and preventive efficacy of icodextrin solution (a biodegradable, biocompatible, **glucose** polymer). Reduction of adhesion formation was first evaluated in a rabbit double uterine horn model, applying 10-75 ml of 7.5 and 20%, or 50 ml of 2.5-20% icodextrin solution post-operatively. Significant increases in adhesion free sites ($P < 0.005$) were observed with volumes gtoreq 25 ml, and at concentrations gtoreq 4%. Efficacy of 50 ml 4 and 20% icodextrin was then evaluated both during and after surgery, demonstrating significant reductions in adhesion formation ($P < 0.002$). In one study, intraplus post-operative use of 4% icodextrin produced the greatest reduction of non-surgical site **adhesions**; in others, the post-operative effect was predominant. Post-surgical administration of 50 ml 4% icodextrin in a rabbit sidewall model also resulted in more adhesion-free animals, and a significant reduction ($P < 0.001$) in areas of adhesion formation and reformation. In a rat infection potentiation model, 4% icodextrin produced no difference in mortality, abscess formation or overall abscess score. These data suggest that 4% icodextrin offers a well-tolerated and effective means of reducing post-surgical adhesion formation.
CC Biophysics - Biocybernetics *10515
Mathematical Biology and Statistical Methods *04500
Reproductive System - Physiology and Biochemistry *16504
Developmental Biology - Embryology - General and Descriptive *25502
BC Leporidae 86040
Hominidae 86215
IT Major Concepts
Models and Simulations (Computational Biology); Reproduction
IT Chemicals & Biochemicals
icodextrin: development, **glucose** polymer solution
IT Miscellaneous Descriptors
adhesion **prevention**; double uterine horn model; rabbit sidewall model of adhesion formation and reformation
ORGN Super Taxa
Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia;
Leporidae: Lagomorpha, Mammalia, Vertebrata, Chordata, Animalia
ORGN Organism Name
human (Hominidae): patient; rabbit (Leporidae)
ORGN Organism Superterms
Animals; Chordates; Humans; Lagomorphs; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Primates; Vertebrates
RN 9004-53-9 (ICODEXTRIN)

L3 ANSWER 2 OF 29 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
AN 2000:411246 BIOSIS
DN PREV200000411246
TI Use of fibrinolytic agents in the **prevention** of postoperative

adhesion formation.

AU Hellebrekers, Bart W. J. (1); Trimbos-Kemper, Trudy C. M.; Trimbos, J. Baptist M. Z.; Emeis, Jef J.; Kooistra, Teake
CS (1) Department of Gynecology, Leiden University Medical Center, 2300 RC, Leiden Netherlands

SO Fertility and Sterility, (August, 2000) Vol. 74, No. 2, pp. 203-212. print.
ISSN: 0015-0282.
DT General Review
LA English
SL English

AB Objective: To review the events leading to the formation of **adhesions**, to describe the development of fibrinolytic agents, to review more than a century of research on the use of fibrinolytic agents in adhesion **prevention**, and to look at future aspects of adhesion **prevention**. Results: A better understanding of the pathogenesis of adhesion formation has resulted in the use of fibrinolytic agents in their **prevention**. Fibrinolytic agents promote fibrinolytic activity during the early period after peritoneal trauma during which an increased formation of fibrin is seen in combination with a deficiency of endogenous fibrinolytic activity. Initially, chemical attacks on fibrin (fibrolysin and hypertonic **glucose**), foreign digestive ferments (pepsin, trypsin, and papain), and stimulation of intraperitoneal leukocytosis (amniotic fluid) were used. Development of new thrombolytic agents was soon followed by experiments in animal adhesion models and clinical studies to examine their antiadhesion properties. Plasmin preparations (plasmin, actase, and fibrinolysin) and plasmin activators (streptokinase, urokinase, and tissue-type plasminogen activator) were found to be efficacious in preventing adhesion formation in the greater part of reviewed animal and clinical studies. Conclusion(s): From the current literature, it can be concluded that postoperative intraperitoneal administration of thrombolytic agents can significantly decrease adhesion formation. Given the large number of experimental studies in animals, future studies should focus on the clinical use of fibrinolytic agents in the **prevention** of postsurgical adhesion formation.

CC Digestive System - Pathology *14006
Biochemical Studies - Proteins, Peptides and Amino Acids *10064
Enzymes - General and Comparative Studies; Coenzymes *10802
Pathology, General and Miscellaneous - Therapy *12512
Blood, Blood-Forming Organs and Body Fluids - Blood, Lymphatic and Reticuloendothelial Pathologies *15006
Reproductive System - Pathology *16506
Pharmacology - General *22002
Pharmacology - Clinical Pharmacology *22005
Pharmacology - Blood and Hematopoietic Agents *22008
BC Hominidae 86215
IT Major Concepts
Gynecology (Human Medicine, Medical Sciences); Hematology (Human Medicine, Medical Sciences); Pharmacology
IT Diseases
abdominal pelvic adhesion: digestive system disease, reproductive system disease/female; peritoneal trauma: injury
IT Chemicals & Biochemicals
actase: thrombolytic; fibrin; fibrinolysin: plasmin preparation, thrombolytic - drug; fibrinolytic agents: thrombolytic; fibrolysin; hypertonic **glucose**; papain; pepsin; plasmin: plasmin preparation, thrombolytic - drug; streptokinase: plasmin activators, thrombolytic - drug; thrombolytic agents: thrombolytic; tissue-type plasminogen activator: plasmin activator, thrombolytic - drug; trypsin; urokinase: plasmin activator, thrombolytic - drug
IT Methods & Equipment
intraperitoneal leukocytosis stimulation: therapeutic method
IT Miscellaneous Descriptors

fibrinolysis; postoperative adhesion formation **prevention**
ORGN Super Taxa
Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia
ORGN Organism Name
human (Hominidae): female, patient
ORGN Organism Superterms
Animals; Chordates; Humans; Mammals; Primates; Vertebrates
RN 9001-90-5 (ACTASE)
9001-90-5 (FIBRINOLYSIN)
8013-20-5 (FIBROLYSIN)
9001-73-4 (PAPAIN)
9001-75-6 (PEPSIN)
9001-90-5 (PLASMIN)
9002-01-1 (STREPTOKINASE)
139639-23-9 (TISSUE-TYPE PLASMINOGEN ACTIVATOR)
9002-07-7 (TRYPSIN)
9039-53-6 (UROKINASE)

L3 ANSWER 5 OF 29 BIOTECHNO COPYRIGHT 2002 Elsevier Science B.V.
AN 2000:30636066 BIOTECHNO
TI Development of a novel **glucose** polymer solution (icodextrin) for adhesion **prevention**: Pre-clinical studies
AU Verco S.J.S.; Peers E.M.; Brown C.B.; Rodgers K.E.; Roda N.; DiZerega G.
CS S.J.S. Verco, ML Laboratories PLC, Blaby, Leicestershire LE8 4FA, United Kingdom.
E-mail: sjsverco@aol.com
SO Human Reproduction, (2000), 15/8 (1764-1772), 52 reference(s)
CODEN: HUREEE ISSN: 0268-1161
DT Journal; Article
CY United Kingdom
LA English
SL English
AB Intra-abdominal adhesion formation causes significant post-operative morbidity. Controlled studies using animal models have been carried out to assess the tolerability and preventive efficacy of icodextrin solution (a biodegradable, biocompatible, **glucose** polymer). Reduction of adhesion formation was first evaluated in a rabbit double uterine horn model, applying 10-75 ml of 7.5 and 20%, or 50 ml of 2.5-20% icodextrin solution post-operatively. Significant increases in adhesion free sites ($P < 0.005$) were observed with volumes >=25 ml, and at concentrations >=4%. Efficacy of 50 ml 4 and 20% icodextrin was then evaluated both during and after surgery, demonstrating significant reductions in adhesion formation ($P < 0.002$). In one study, intraplus post-operative use of 4% icodextrin produced the greatest reduction of non-surgical site **adhesions**; in others, the post-operative effect was predominant. Post-surgical administration of 50 ml 4% icodextrin in a rabbit sidewall model also resulted in more adhesion-free animals, and a significant reduction ($P < 0.001$) in areas of adhesion formation and reformation. In a rat infection potentiation model, 4% icodextrin produced no difference in mortality, abscess formation or overall abscess score. These data suggest that 4% icodextrin offers a well-tolerated and effective means of reducing post-surgical adhesion formation.
CT *icodextrin; *peritoneum adhesion; controlled study; animal model; nonhuman; female; uterus synechia; postoperative complication; drug efficacy; drug tolerability; rabbit; uterus; bacterial peritonitis; article
CO Drug Manufacturer: ML, United Kingdom

L3 ANSWER 6 OF 29 BIOTECHNO COPYRIGHT 2002 Elsevier Science B.V.
AN 2000:30604178 BIOTECHNO
TI Use of fibrinolytic agents in the **prevention** of postoperative adhesion formation
AU Hellebrekers B.W.J.; Trimbos-Kemper T.C.M.; Trimbos J.B.M.Z.; Emeis J.J.; Kooistra T.

CS Dr. B.W.J. Hellebrekers, Department of Gynecology, Leiden University Medical Center, P.O. Box 9600, 2300 RC Leiden, Netherlands. E-mail: bwjh@xs4all.nl
SO Fertility and Sterility, (2000), 74/2 (203-212), 104 reference(s) CODEN: FESTAS ISSN: 0015-0282
PUI S0015028200006567
DT Journal; General Review
CY United States
LA English
SL English
AB Objective: To review the events leading to the formation of **adhesions**, to describe the development of fibrinolytic agents, to review more than a century of research on the use of fibrinolytic agents in adhesion **prevention**, and to look at future aspects of adhesion **prevention**. Results: A better understanding of the pathogenesis of adhesion formation has resulted in the use of fibrinolytic agents in their **prevention**. Fibrinolytic agents promote fibrinolytic activity during the early period after peritoneal trauma during which an increased formation of fibrin is seen in combination with a deficiency of endogenous fibrinolytic activity. Initially, chemical attacks on fibrin (fibrolysin and hypertonic **glucose**), foreign digestive ferments (pepsin, trypsin, and papain), and stimulation of intraperitoneal leukocytosis (amniotic fluid) were used. Development of new thrombolytic agents was soon followed by experiments in animal adhesion models and clinical studies to examine their antiadhesion properties. Plasmin preparations (plasmin, actase, and fibrinolysin) and plasmin activators (streptokinase, urokinase, and tissue-type plasminogen activator) were found to be efficacious in preventing adhesion formation in the greater part of reviewed animal and clinical studies. Conclusion(s): From the current literature, it can be concluded that postoperative intraperitoneal administration of thrombolytic agents can significantly decrease adhesion formation. Given the large number of experimental studies in animals, future studies should focus on the clinical use of fibrinolytic agents in the **prevention** of postsurgical adhesion formation. Copyright (C) 2000 American Society for Reproductive Medicine.
CT *fibrinolytic agent; *fibrinolysis; *postoperative complication; *peritoneum adhesion; *adhesion; streptokinase; plasmin; varidase; plasminogen activator; reteplase; pepsin A; papain; alteplase; trypsin; urokinase; fibrolysin; unclassified drug; peritoneum; human; nonhuman; review; priority journal
RN (streptokinase) 9002-01-1; (plasmin) 9001-90-5, 9004-09-5; (varidase) 8048-16-6; (plasminogen activator) 9039-53-6; (reteplase) 133652-38-7; (pepsin A) 9001-75-6; (papain) 9001-73-4; (alteplase) 105857-23-6; (trypsin) 9002-07-7; (urokinase) 139639-24-0

L3 ANSWER 9 OF 29 CAOLD COPYRIGHT 2002 ACS
AN CA34:7438g CAOLD
TI Intraperitoneal use of hypertonic **glucose** solution-**prevention** of **adhesions**
AU Totten, H. P.

L3 ANSWER 10 OF 29 CAPLUS COPYRIGHT 2002 ACS
AN 2002:369128 CAPLUS
DN 137:57517
TI A randomized, controlled pilot study of the safety and efficacy of 4% icodextrin solution in the reduction of **adhesions** following laparoscopic gynecological surgery
AU DiZerega, G. S.; Verco, S. J. S.; Young, P.; Kettel, M.; Kobak, W.; Martin, D.; Sanfilippo, J.; Peers, E. M.; Scrimgeour, A.; Brown, C. B.
CS University of Southern California Keck School of Medicine, Los Angeles, CA, USA
SO Human Reproduction (2002), 17(4), 1031-1038 CODEN: HUREEE; ISSN: 0268-1161

PB Oxford University Press
DT Journal
LA English
CC 1-12 (Pharmacology)
AB BACKGROUND: Adhesion-related readmissions are frequent sequelae to gynaecol. surgery. Attempts to prevent **adhesions** by separating healing peritoneal surfaces include site-specific barriers and hydroflotation by instilled solns. Rapid absorption limits the effectiveness of solns. such as Ringer's lactated saline (RLS). This pilot study assessed the safety, tolerability and preliminary effectiveness of a non-viscous, iso-osmolar solution of 4% icodextrin, an α-1,4 **glucose** polymer with prolonged i.p. residence, in reducing **adhesions** after laparoscopic gynaecol. surgery. METHODS: Women aged ≥18 yr, requiring laparoscopic adnexal surgery (n = 62), were entered into a randomized, open-label, assessor-blinded, multicenter study to compare 4% icodextrin with RLS. Treatments were coded in blocks of four with equal randomization to each group, and pre-allocated to consecutively numbered patients. At least 100 mL per 30 min was used for intra-operative lavage, with 1 l instilled post-operatively. Per protocol anal. included all eligible patients (n = 53); reformation anal. required one or more baseline adhesion (n = 42). Incidence, extent and severity of post-operative **adhesions** were assessed at second-look laparoscopy after 6-12 wk. Procedures were video-taped for third party, blinded assessment. RESULTS: Safety and tolerability (laboratory variables, adverse events, clin. follow-up) were good with no difference between treatments. A shift anal. of incidence-ranked **adhesions** (n = 53) showed apparent improvements in more patients with icodextrin than RLS (37 vs. 15%; not significant). Adhesion score reduction (n = 42) was more frequent in icodextrin- than RLS-treated patients: incidence (52 vs. 32%), extent (52 vs. 47%), and severity (65 vs. 37%). Despite greater baseline **adhesions**, median reformation was less after icodextrin (24%) than RLS (60%). The pilot study group sizes were not powered for statistical significance. CONCLUSIONS: In this preliminary study, 4% icodextrin lavage plus instillation was well tolerated and reduced adhesion formation and reformation following laparoscopic gynaecol. surgery. A Phase III pivotal study is currently in progress.
ST icodextrin soln peritoneal adhesion redn **prevention** laparoscopy gynecol surgery
IT Named reagents and solutions
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Ringer's lactate; icodextrin solution (Adept) vs. Ringers lactate: safety and efficacy in reduction of patient **adhesions** following laparoscopic gynaecol. surgery)
IT Peritoneum
(adhesion; icodextrin solution (Adept) vs. Ringers lactate: safety and efficacy in reduction of patient **adhesions** following laparoscopic gynaecol. surgery)
IT Peritoneum
(cavity, instillation of icodextrin solution; icodextrin solution (Adept) vs.
Ringers lactate: safety and efficacy in reduction of patient **adhesions** following laparoscopic gynaecol. surgery)
IT Human
(icodextrin solution (Adept) vs. Ringers lactate: safety and efficacy in reduction of patient **adhesions** following laparoscopic gynaecol. surgery)
IT Abdomen
Surgery
(laparoscopy, gynecol.; icodextrin solution (Adept) vs. Ringers lactate: safety and efficacy in reduction of patient **adhesions** following laparoscopic gynaecol. surgery)
IT Adhesion, biological

(peritoneal; icodextrin solution (Adept) vs. Ringers lactate: safety and efficacy in reduction of patient **adhesions** following laparoscopic gynaecol. surgery)

IT 337376-15-5, Adept
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(icodextrin solution (Adept) vs. Ringers lactate: safety and efficacy in reduction of patient **adhesions** following laparoscopic gynaecol. surgery)

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L3 ANSWER 11 OF 29 CAPLUS COPYRIGHT 2002 ACS

AN 2000:617408 CAPLUS
DN 134:120900

TI Development of a novel **glucose** polymer solution (icodextrin) for adhesion **prevention**: Pre-clinical studies

AU Verco, Shelagh J. S.; Peers, Elizabeth M.; Brown, Colin B.; Rodgers, Kathleen E.; Roda, Norma; diZerega, Gere
CS ML Laboratories PLC, Leicestershire, LE8 4FA, UK

SO Human Reproduction (2000), 15(8), 1764-1772
CODEN: HUREEE; ISSN: 0268-1161
PB Oxford University Press

DT Journal
LA English
CC 63-8 (Pharmaceuticals)
AB Intra-abdominal adhesion formation causes significant post-operative morbidity. Controlled studies using animal models have been carried out to assess the tolerability and preventive efficacy of icodextrin solution (a biodegradable, biocompatible, **glucose** polymer). Reduction of adhesion formation was first evaluated in a rabbit double uterine horn model, applying 10-75 mL of 7.5 and 20%, or 50 mL of 2.5-20% icodextrin solution post-operatively. Significant increases in adhesion free sites ($P < 0.005$) were observed with vols. ≥25 mL, and at concns. ≥4%. Efficacy of 50 mL 4 and 20% icodextrin was then evaluated both during and after surgery, demonstrating significant redns. in adhesion formation ($P < 0.002$). In one study, intraplus post-operative use of 4% icodextrin produced the greatest reduction of non-surgical site **adhesions**; in others, the post-operative effect was predominant. Post-surgical administration of 50 mL 4% icodextrin in a rabbit sidewall model also resulted in more adhesion-free animals, and a significant reduction ($P < 0.001$) in areas of adhesion formation and reformation. In a rat infection potentiation model, 4% icodextrin produced no difference in mortality, abscess formation or overall abscess score. These data suggest that 4% icodextrin offers a well-tolerated and effective means of reducing post-surgical adhesion formation.
ST icodextrin soln peritoneum adhesion
IT Adhesion, biological
Peritoneum
(pre-clin. studies of biodegradable and biocompatible icodextrin solns. for adhesion **prevention**)
IT Drug delivery systems
(solns.; pre-clin. studies of biodegradable and biocompatible icodextrin solns. for adhesion **prevention**)
IT 9004-53-9, Icodextrin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pre-clin. studies of biodegradable and biocompatible icodextrin solns. for adhesion **prevention**)
RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD
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L3 ANSWER 14 OF 29 CAPLUS COPYRIGHT 2002 ACS
AN 1940:48614 CAPLUS
DN 34:48614
OREF 34:7438f-g
TI The intraperitoneal use of hypertonic **glucose** solution. An experimental study with reference to the **prevention** of **adhesions**
AU Totten, H. P.
SO Surgery (1940), 8, 456-63
DT Journal
LA Unavailable
CC 11H (Biological Chemistry: Pharmacology)
AB Hypertonic **glucose** in normal salt solution is entirely innocuous when given intraperitoneally to rabbits. It is completely absorbed within 24 hrs. It prevents the formation and re-formation of exptl. **adhesions** and produces a certain degree of nonspecific immunity in the peritoneum. When gross peritoneal contamination is present, hypertonic **glucose** hastens the spread of infection.

L3 ANSWER 17 OF 29 PASCAL COPYRIGHT 2002 INIST-CNRS. ALL RIGHTS RESERVED.
AN 2000-0455327 PASCAL
CP Copyright .COPYRGT. 2000 INIST-CNRS. All rights reserved.
TIEN Use of fibrinolytic agents in the **prevention** of postoperative adhesion formation
AU HELLEBREKERS B. W. J.; TRIMBOS-KEMPER T. C. M.; TRIMBOS J. B. M. Z.; EMEIS J. J.; KOOISTRA T.
CS Leiden University Medical Center, Leiden, Netherlands; Gaubius Laboratory TNO-PG, Leiden, Netherlands
SO Fertility and sterility, (2000), 74(2), 203-212, 104 refs.
ISSN: 0015-0282 CODEN: FESTAS
DT Journal
BL Analytic
CY United States
LA English
AV INIST-4120, 354000091007290010

AB Objective: To review the events leading to the formation of **adhesions**, to describe the development of fibrinolytic agents, to review more than a century of research on the use of fibrinolytic agents in adhesion **prevention**, and to look at future aspects of adhesion **prevention**. Results: A better understanding of the pathogenesis of adhesion formation has resulted in the use of fibrinolytic agents in their **prevention**. Fibrinolytic agents promote fibrinolytic activity during the early period after peritoneal trauma during which an increased formation of fibrin is seen in combination with a deficiency of endogenous fibrinolytic activity. Initially, chemical attacks on fibrin (fibrolysin and hypertonic **glucose**). foreign digestive ferments (pepsin, trypsin, and papain), and stimulation of intraperitoneal leukocytosis (amniotic fluid) were used. Development of new thrombolytic agents was soon followed by experiments in animal adhesion models and clinical studies to examine their antiadhesion properties. Plasmin preparations (plasmin, actase, and fibrinolysin) and plasmin activators (streptokinase, urokinase, and tissue-type plasminogen activator) were found to be efficacious in preventing adhesion formation in the greater part of reviewed animal and clinical studies. Conclusion(s): From the current literature, it can be concluded that postoperative intraperitoneal administration of thrombolytic agents can significantly decrease adhesion formation. Given the large number of experimental studies in animals, future studies should focus on the clinical use of fibrinolytic agents in the **prevention** of postsurgical adhesion formation.
CC 002B02G; Life sciences; Medical sciences; Pharmacology; Hematology
CT Postoperative; Fibrinolytic; Pepsin A; Trypsin; Papain; Streptokinase; Plasmin; u-Plasminogen activator; t-Plasminogen activator; Review; Adhesion
BT Aspartic endopeptidases; Peptidases; Hydrolases; Enzyme; Serine endopeptidases; Cysteine endopeptidases; **Prevention**; Fibrinolysis; Mechanism of action

L3 ANSWER 20 OF 29 PASCAL COPYRIGHT 2002 INIST-CNRS. ALL RIGHTS RESERVED.
AN 1990-0183104 PASCAL
TIEN Preventing recurrent postoperative **adhesions**: an experimental study in rats
AU VERREET P. R.; FAKIR C.; OHMANN C.; ROEHER H. D.
CS Heinrich-Heine-univ., dep. surgery, Duesseldorf 4000, Germany, Federal Republic of
SO European Surgical Research, (1989), 21(5), 267-273, 20 refs. ISSN: 0014-312X CODEN: EUSRBM
DT Journal
BL Analytic
CY Switzerland
LA English
AV CNRS-14606
AB A peritoneal lavage model, cyclic intraperitoneal lavage (CIPL), and other adhesion preventing methods with and without fibrinolytic agents were compared to a control group without treatment in an animal study. The adhesion-preventing effect was evaluated at the site of a standardized peritoneal defect (free peritoneal grafting, P) and at the laparotomy wound (L) of 60 rats (12 escape) after surgical lysis of primary **adhesions** during relaparotomy
CC 002B25G04; Life sciences; Medical sciences; Gastroenterology, Digestive system
CT Adhesion; Peritoneum; Postoperative; **Prevention**; Washing; Peritoneal cavity; Ringer solution; **Glucose**; Fibrinolytic; Digestive diseases; Animal model; Animal; Rat
BT Rodentia; Mammalia; Vertebrata

L3 ANSWER 26 OF 29 SCISEARCH COPYRIGHT 2002 ISI (R)
AN 2002:358572 SCISEARCH
GA The Genuine Article (R) Number: 543UA

TI A randomized, controlled pilot study of the safety and efficacy of 4(icodextrin solution in the reduction of **adhesions** following laparoscopic gynaecological surgery

AU diZerega G S; Verco S J S (Reprint); Young P; Kettel M; Kobak W; Martin D; Sanfilippo J; Peers E M; Scrimgeour A; Brown C B

CS ML Labs PLC, Blaby Hall, Church St, Leicester LE8 4FA, Leics, England (Reprint); ML Labs PLC, Leicester LE8 4FA, Leics, England; Univ So Calif, Keck Sch Med, Los Angeles, CA USA; IGO Med Grp, San Diego, CA USA; San Diego Fertil Ctr, San Diego, CA USA; Allegheny Gen Hosp, Pittsburgh, PA 15212 USA

CYA England; USA

SO HUMAN REPRODUCTION, (APR 2002) Vol. 17, No. 4, pp. 1031-1038. Publisher: OXFORD UNIV PRESS, GREAT CLARENDON ST, OXFORD OX2 6DP, ENGLAND. ISSN: 0268-1161.

DT Article; Journal

LA English

REC Reference Count: 40

AB Background: Adhesion-related readmissions are frequent sequelae to gynaecological surgery. Attempts to prevent **adhesions** by separating healing peritoneal surfaces include site-specific barriers and hydroflotation by instilled solutions. Rapid absorption limits the effectiveness of solutions such as Ringer's lactated saline (RLS). This pilot study assessed the safety, tolerability and preliminary effectiveness of a non-viscous, iso-osmolar solution of 4% icodextrin, an alpha-1,4 **glucose** polymer with prolonged intraperitoneal residence, in reducing **adhesions** after laparoscopic gynaecological surgery. Methods: Women aged greater than or equal to18 years, requiring laparoscopic adnexal surgery (n=62), were entered into a randomized, open-label, assessor-blinded, multicentre study to compare 4% icodextrin with RLS. Treatments were coded in blocks of four with equal randomization to each group, and pre-allocated to consecutively numbered patients. At least 100 ml per 30 min was used for intra-operative lavage, with 1 l instilled post-operatively. Per protocol analysis included all eligible patients (n=53); reformation analysis required one or more baseline adhesion (n=42). Incidence, extent and severity of post-operative **adhesions** were assessed at second-look laparoscopy after 6-12 weeks. Procedures were video-taped for third party, blinded assessment. Results: Safety and tolerability (laboratory variables, adverse events, clinical follow-up) were good with no difference between treatments. A shift analysis of incidence-ranked **adhesions** (n=53) showed apparent improvements in more patients with icodextrin than RLS (37 versus 15%; not significant). Adhesion score reduction (n=42) was more frequent in icodextrin-than RLS-treated patients: incidence (52 versus 32%), extent (52 versus 47%), and severity (65 versus 37%). Despite greater baseline **adhesions**, median reformation was less after icodextrin (24%) than RLS (60%). The pilot study group sizes were not powered for statistical significance. Conclusions: In this preliminary study, 4% icodextrin lavage plus instillation was well tolerated and reduced adhesion formation and reformation following laparoscopic gynaecological surgery. A Phase III pivotal study is currently in progress.

CC OBSTETRICS & GYNECOLOGY; REPRODUCTIVE BIOLOGY

ST Author Keywords: **glucose** polymer; icodextrin; laparoscopic surgery; peritoneal **adhesions**; post-surgical **adhesions**

STP KeyWords Plus (R): HOSPITAL READMISSIONS; PELVIC-SURGERY; **PREVENTION**; MULTICENTER; **GLUCOSE**; 5-FLUOROURACIL

RE

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JOHNS D B	1999	72	S57	FERTIL STERIL S1
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MCARDLE C S	1994	70	762	BRIT J CANCER
MISTRY C D	1994	46	496	KIDNEY INT
PEERS E	1997	17	22	PERITON DIALYSIS INT
POSTHUMA N	1997	12	550	NEPHROL DIAL TRANSPL
SHEAR L	1965	272	123	NEW ENGL J MED
SITES C K	1997	16	195	J ULTRAS MED
STOUT A L	1991	146	73	AM J OBSTET GYNECOL
STRICKER B	1994	178	617	J AM COLL SURGEONS
THORNTON M H	1998	13	1480	HUM REPROD
THORNTON M H	1997		370	PERITONEAL ADHESIONS
TOPLEY N	1994	14	S28	PERITON DIALYSIS INT
TRIMBOSKEMPER T C M	1985	43	396	FERTIL STERIL
VERCO S J S	2000	15	1764	HUM REPROD
VERCO S J S	2000		74	EUR PHARM CONTRA AUG
WISEMAN D M	1998	70	702	FERTIL STERIL

L3 ANSWER 27 OF 29 SCISEARCH COPYRIGHT 2002 ISI (R)
AN 2000:623477 SCISEARCH
GA The Genuine Article (R) Number: 342KM
TI Development of a novel **glucose** polymer solution (icodextrin) for adhesion **prevention**: pre-clinical studies
AU Verco S J S (Reprint); Peers E M; Brown C B; Rodgers K E; Roda N; diZerega G
CS ML LABS PLC, BLABY LE8 4FA, LEICS, ENGLAND (Reprint); LIVINGSTON RES INST, LOS ANGELES, CA 90033
CYA ENGLAND; USA
SO HUMAN REPRODUCTION, (AUG 2000) Vol. 15, No. 8, pp. 1764-1772.
Publisher: OXFORD UNIV PRESS, GREAT CLARENDON ST, OXFORD OX2 6DP, ENGLAND.
ISSN: 0268-1161.
DT Article; Journal
FS LIFE; CLIN
LA English
REC Reference Count: 52
AB Intra-abdominal adhesion formation causes significant post-operative morbidity, Controlled studies using animal models have been carried out to assess the tolerability and preventive efficacy of icodextrin solution (a biodegradable, biocompatible, **glucose** polymer). Reduction of adhesion formation was first evaluated in a rabbit double uterine horn model, applying 10-75 ml of 7.5 and 20%, or 50 ml of 2.5-20% icodextrin solution post-operatively. Significant increases in adhesion free sites ($P < 0.005$) were observed with volumes greater than or equal to 25 mi, and at concentrations greater than or equal to 4%. Efficacy of 50 mi 4 and 20% icodextrin was then evaluated both during and after surgery, demonstrating significant reductions in adhesion formation ($P < 0.002$), In one study,

intraplus post-operative use of 4% icodextrin produced the greatest reduction of non-surgical site **adhesions**; in others, the post-operative effect was predominant. Post-surgical administration of 50 mi 4% icodextrin in a rabbit sidewall model also resulted in more adhesion-free animals, and a significant reduction ($P < 0.001$) in areas of adhesion formation and reformation. In a rat infection potentiation model, 4% icodextrin produced no difference in mortality, abscess formation or overall abscess score. These data suggest that 4% icodextrin offers a well-tolerated and effective means of reducing post-surgical adhesion formation.

CC REPRODUCTIVE BIOLOGY; OBSTETRICS & GYNECOLOGY

ST Author Keywords: **glucose** polymer; icodextrin; peritoneal **adhesions**; preclinical

STP KeyWords Plus (R): INDUCED POSTOPERATIVE **ADHESIONS**; PELVIC-SURGERY; REDUCTION; OBSTRUCTION; MYOMECTOMY; BARRIER

RE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)
*ADH BARR STUD GRO	1989	51	933	FERTIL STERIL
*NORD ADH PREV STU	1995	63	709	FERTIL STERIL
AZZIZ R	1993	177	135	SURG GYNECOL OBSTET
BECK D E	1999	42	241	DIS COLON RECTUM
BHATIA D S	1997	63	775	AM SURGEON
BRONSON R A	1977	28	613	FERTIL STERIL
DAVIS D	1994	14	4	PUBLIC MONEY MANAGE
DIAMOND M	1988	69	1067	FERTIL STERIL
DIAMOND M P	1996	66	904	FERTIL STERIL
DIZEREGA G S	1994	61	219	FERTIL STERIL
DIZEREGA G S	1994	5	463	INFERTIL REPROD MED
DIZEREGA G S	1992		2	PERITONEUM
DIZEREGA G S	1992		325	PERITONEUM
DIZEREGA G S	1992		378	PERITONEUM
ELLIS H	1999	353	1476	LANCET
FAYEZ J A	1987	157	1184	AM J OBSTET GYNECOL
FRANCOIS M	1995	2	86	ARCH PEDIATR
GAUWERKY J F H	1986	7	93	BIOL RES PREG PERIN
GILBERT J A	1999	19	S79	PERITON DIALYSIS INT
HARRIS E S	1995	117	663	SURGERY
HART R	1996	5	287	GYNAECOL ENDOSC
HODACPANNEKEET M M	1996	50	979	KIDNEY INT
HOLMDAHL L	1999	353	1456	LANCET
HOWARD F M	1993	48	357	OBSTET GYNECOL SURV
JOHNS D B	1997	68	37	FERTIL STERIL
KECKSTEIN J	1996	11	579	HUM REPROD
KRESCH A J	1984	64	672	OBSTET GYNECOL
LIBEREK T	1993	65	260	NEPHRON
LINDENBERG S	1982	14	274	EUR SURG RES
MAIS V	1995	10	3133	HUM REPROD
MILLER E M	1959	78	148	ARCH SURG-CHICAGO
MONK B J	1994	170	1396	AM J OBSTET GYNECOL
NAETHER O G J	1993	60	95	FERTIL STERIL
NISHIMURA K	1984	77	102	AM J MED
RAFTERY A T	1973	115	375	J ANAT
RODGERS K	1997	36	1	FUND APPL TOXICOL
RODGERS K E	1998	70	1131	FERTIL STERIL
RODGERS K E	1998	12	2443	HUM REPROD
RODGERS K E	1996	9	388	J INVEST SURG
RODGERS K E	1997	10	31	J INVEST SURG
SHEAR L	1965	272	123	NEW ENGL J MED
SITTER T	1999	82	1171	THROMB HAEMOSTASIS
STOUT A L	1991	146	73	AM J OBSTET GYNECOL
STRICKER B	1994	178	617	J AM COLL SURGEONS
THOMAS S	1997	29	246	AM J KIDNEY DIS

THORNTON M H	1998	13	1480	HUM REPROD
TOPLEY N	1994	14	S28	PERITON DIALYSIS INT
TRIMBOSKEMPER T C M	1989	51	1053	FERTIL STERIL
TULANDI T	1998	92	766	OBSTET GYNECOL
VERCO S J S	1999	14	275	HUM REPROD
WEINSTEIN W M	1974	10	1250	INFECT IMMUN
WISEMAN D M	1998	70	702	FERTIL STERIL

L3 ANSWER 28 OF 29 SCISEARCH COPYRIGHT 2002 ISI (R)
AN 2000:610679 SCISEARCH
GA The Genuine Article (R) Number: 341MW
TI Use of fibrinolytic agents in the **prevention** of postoperative adhesion formation
AU Hellebrekers B W J (Reprint); TrimbosKemper T C M; Trimbos J B M Z; Emeis J J; Kooistra T
CS LEIDEN UNIV, MED CTR, DEPT GYNECOL, POB 9600, NL-2300 RC LEIDEN, NETHERLANDS (Reprint); TNO, GAUBIUS LAB, LEIDEN, NETHERLANDS
CYA NETHERLANDS
SO FERTILITY AND STERILITY, (AUG 2000) Vol. 74, No. 2, pp. 203-212.
Publisher: ELSEVIER SCIENCE INC, 655 AVENUE OF THE AMERICAS, NEW YORK, NY 10010.
ISSN: 0015-0282.
DT General Review; Journal
FS LIFE; CLIN
LA English
REC Reference Count: 103
AB Objective: To review the events leading to the formation of **adhesions**, to describe the development of fibrinolytic agents, to review more than a century of research on the use of fibrinolytic agents in adhesion **prevention**, and to look at future aspects of adhesion **prevention**.

Results: A better understanding of the pathogenesis of adhesion formation has resulted in the use of fibrinolytic agents in their **prevention**. Fibrinolytic agents promote fibrinolytic activity during the early period after peritoneal trauma during which an increased formation of fibrin is seen in combination with a deficiency of endogenous fibrinolytic activity. Initially, chemical attacks on fibrin (fibrolysin and hypertonic **glucose**), foreign digestive ferments (pepsin, trypsin, and papain), and stimulation of intraperitoneal leuikocytosis (amniotic fluid) were used. Development of new thrombolytic agents was soon followed by experiments in animal adhesion models and clinical studies to examine their antiadhesion properties. Plasmin preparations (plasmin, actase, and fibrinolysin) and plasmin activators (streptokinase, urokinase, and tissue-type plasminogen activator) were found to be efficacious in preventing adhesion formation in the: greater part of reviewed animal and clinical studies.

Conclusion(s): From the current literature, it can be concluded that postoperative intraperitoneal administration of thrombolytic agents can significantly decrease adhesion formation. Given the large number of experimental studies in animals, future studies should focus on the clinical use of fibrinolytic agents in the **prevention** of postsurgical adhesion formation. (C) 2000 by American Society for Reproductive Medicine.
CC OBSTETRICS & GYNECOLOGY; REPRODUCTIVE BIOLOGY
ST Author Keywords: adhesion **prevention**; fibrinolytic agents; fibrolysin; pepsin; trypsin; papain; streptokinase; plasmin; urokinase; tissue plasminogen activator
STP KeyWords Plus (R): TISSUE-PLASMINOGEN-ACTIVATOR; ACUTE MYOCARDIAL-INFARCTION; CHRONIC PELVIC PAIN; INTRAPERITONEAL **ADHESIONS**; INTRAABDOMINAL **ADHESIONS**; POSTSURGICAL **ADHESIONS**; MESOTHELIAL CELLS; ELECTIVE SURGERY; TUBAL SURGERY; RABBIT MODEL
RE

Referenced Author	Year	VOL	PG	Referenced Work

(RAU)	(RPY)	(RVL)	(RPG)	(RWK)
ANON	1997	337	1118	NEW ENGL J MED
*AM FERT SOC	1988	49	944	FERTIL STERIL
AMSTERDAM E A	1996	16	S137	PHARMACOTHERAPY
BAKKUM E A	1996	66	1018	FERTIL STERIL
BAKKUM E A	1996	5	1	REPROD MED REV
BIRKENFELD A	1983	72	246	ANN CHIR GYNAECOL FE
BODE C	1996	78	16	AM J CARDIOL
BOTHIN C	1995	40	102	INT J FERTIL MENOP S
BOYS F	1942	11	118	SURGERY
BRONSON R A	1977	28	613	FERTIL STERIL
BRYANT L R	1963	106	892	AM J SURG
BUCKMAN R F	1976	20	1	J SURG RES
BUCKMAN R F	1976	21	67	J SURG RES
CLIFFTON E E	1953	6	143	J APPL PHYSIOL
COFFEY R C	1913	61	1952	JAMA-J AM MED ASSOC
COLLINS D L	1963	183	543	ARCH SURG-CHICAGO
DASTRE A	1893	5	661	ARCH NORM PATHOL
DENYS J	1889	5	197	CELLULE
DIZEREGA G S	1994	61	219	FERTIL STERIL
DONALDSON J K	1938	36	20	ARCH SURG-CHICAGO
DOODY K J	1989	51	509	FERTIL STERIL
DORR P J	1990	37	287	EUR J OBSTET GYN R B
DORR P J	1992	68	102	THROMB HAEMOSTASIS
DUNN R C	1991	5	1327	AM J OBSTET GYNECOL
DUNN R C	1993	54	242	J SURG RES
DUNN R O	1994	5	529	INFORM
ELLIS H	1999	353	1476	LANCET
ELLIS H	1971	133	497	SURG GYNECOL OBSTET
EVANS D M	1993	165	229	AM J SURG
GEHLBACH D L	1994	39	172	INT J FERTIL MENOP S
GELLHORN G	1909	8	505	SURG GYNECOL OBSTET
GERVIN A S	1973	125	80	AM J SURG
GOMEL V	1983	39	144	FERTIL STERIL
GUSTAVSSON E	1955	109	327	ACTA CHIR SCAND
HARTWELL S W	1955		109	MECH HEALING HUMAN W
HELLEBREKERS B W J				IN PRESS THROMB HAEM
HILLWEST J L	1995	59	759	J SURG RES
HOLMDAHL L	1997	577	24	EUR J SURG
HOLMDAHL L	1996	10	1	FIBRINOLYSIS
HOLMDAHL L	1994	7	171	WOUND REP REG
HOLTZ G	1984	41	497	FERTIL STERIL
JAMES D C O	1965	90	279	J PATHOL BACTERIOL
JEWETT T C	1964	57	280	SURGERY
JOHNSON A J	1952	95	449	J EXP MED
JOHNSON H L	1928	199	661	NEW ENGL J MED
KNIGHTLY J J	1962	52	250	SURGERY
KUBOTA T	1922	11	226	JAPAN MED WORLD
KUHN F	1911	96	759	ARCH F KLIN CHIR
LAI H S	1998	97	323	J FORMOS MED ASSOC
MACFARLANE R G	1948	3	1167	BLOOD
MEIER H	1985	366	191	LANGENBECKS ARCH CHI
MENZIES D	1989	82	534	J ROY SOC MED
MENZIES D	1991	172	362	SURG GYNECOL OBSTET
MOHLER M A	1987	58	270	THROMB HAEMOSTASIS
MONK B J	1994	170	1396	AM J OBSTET GYNECOL
MONTZ F J	1991	165	1539	AM J OBSTET GYNECOL
MYHREJENSEN O	1969	88	623	ARCH PATH
NOBLE S	1996	52	589	DRUGS
OCHSNER A	1928	25	524	P SOC EXP BIOL MED
OCHSNER A	1932	54	338	SURG GYNECOL OBSTET
ORITA H	1991	36	172	INT J FERTIL
PENNICA D	1983	201	214	NATURE

PETERS A A W	1992	99	59	BRIT J OBSTET GYNAEC
PFEFFER W H	1980	33	245	FERTIL STERIL
PIJLMAN B M	1994	53	155	EUR J OBSTET GYN R B
POPE S	1914	59	101	ANN SURG
RAFTERY A T	1981	13	397	EUR SURG RES
REA C E	1933	31	1060	P SOC EXP BIOL MED
RIJKEN D C	1979	580	140	BIOCHIM BIOPHYS ACTA
RIJKEN D C	1981	156	7035	J BIOL CHEM
RISBERG B	1997	577	32	EUR J SURG S
RIVKIND A I	1985	17	254	EUR SURG RES
SCHUTZE U	1977	119	123	MUNCHEN MED WOCHEN
SCOTTCOOMBES D	1995	82	414	BRIT J SURG
SCOTTCOOMBES D M	1994	81	770	BRIT J SURG
SIEVERS S	1978	96	1296	FORTSCHR MED
SIEVERS S	1981	99	27	FORTSCHR MED
SITTER T	1999	55	120	KIDNEY INT
SITTER T	1999	82	1171	THROMB HAEMOSTASIS
SOLLMAN T	1934		205	MANUAL PHARM
SPAGNA P M	1961	113	547	SURG GYNECOL OBSTET
STAPEL A	1997	382	33	LANGENBECK ARCH CHIR
STEEGE J F	1991	165	278	AM J OBSTET GYNECOL
THOMAS J W	1950	1	125	SURF FORUM
THOMPSON J N	1989	76	382	BRIT J SURG
TILLETT W S	1933	56	485	J EXP MED
TREUTNER K H	1989	374	99	LANGENBECK ARCH CHIR
TRIMBOSKEMPER T C M	1985	43	395	FERTIL STERIL
TRUSLER H M	1931	22	983	ARCH SURG-CHICAGO
TUCHMANN A	1990	2	1041	LANGENBECKS ARCH C S
VANGOOR H	1996	28	287	EUR SURG RES
VERREET P R	1989	21	267	EUR SURG RES
VERSTRAETE M	1995	74	25	THROMB HAEMOSTASIS
VIPOND M N	1994	76	412	ANN ROY COLL SURG
VIPOND M N	1994	160	471	EUR J SURG
VIPOND M N	1990	335	1120	LANCET
VONBENZER H	1963	75	881	WIEN KLIN WOCHENSCHR
WALTON R P	1930	40	403	J PHARMACOL EXP THER
WARREN S	1928	6	860	ARCH SURG-CHICAGO
WHAWELL S A	1993	80	107	BRIT J SURG
WHITTING H W	1966	341	155	VIRCHOWS ARCH PATHOL
WRIGHT L T	1950	75	602	P SOC EXP BIOL MED
YARDUMIAN K	1934	29	264	ARCH SURG-CHICAGO

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